IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

JUN 2 1 2005

Technology Center 2100

In re application of: NOBORU FURUUMI et al. Application No.: 10/722,781 Filed: November 25, 2003 For: INFORMATION PROCESSING SYSTEM, STORAGE SYSTEM, STORAGE DEVICE CONTROL APPARATUS AND PROGRAM Customer No.: 20350	Examiner: Unassigned Technology Center/Art Unit: 2186 Confirmation No.: 7247 **PETITION TO MAKE SPECIAL FOR NEW APPLICATION UNDER M.P.E.P. § 708.02, VIII & 37 C.F.R. § 1.102(d)**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is a petition to make special the above-identified application under MPEP § 708.02, VIII & 37 C.F.R. § 1.102(d). The application has not received any examination by an Examiner.

(a)   The Commissioner is authorized to charge the petition fee of $130 under 37 C.F.R. § 1.17(i) and any other fees associated with this paper to Deposit Account 20-1430.

(b)   All the claims are believed to be directed to a single invention. If the Office determines that all the claims presented are not obviously directed to a single invention, then Applicants will make an election without traverse as a prerequisite to the grant of special status.

(c)   Pre-examination searches were made of U.S. issued patents, including a classification search and a computer database search. The searches were performed on or around October 11, 2004, and were conducted by a professional search firm, Kramer & Amado, P.C. The classification search covered Class 707 (subclasses 200 and 201), Class 711 (subclass 162), and Class 710 (subclasses 300 and 305) for the U.S. and foreign subclasses identified above. The computer database search was conducted on the USPTO systems EAST and WEST. The inventors further provided a reference considered most closely related to the subject matter of the present application (see reference #8 below), which was cited in the Information Disclosure Statements filed on May 11, 2004.

(d)   The following references, copies of which are attached herewith, are deemed most closely related to the subject matter encompassed by the claims:

(1)   U.S. Patent No. 3,795,901;

(2)   U.S. Patent No. 5,832,510;

(3)   U.S. Patent No. 6,681,303 B1;

(4)   U.S. Patent Publication No. 2003/0033463 A1;

(5)   U.S. Patent Publication No. 2003/0041207 A1;

(6)   U.S. Patent Publication No. 2003/0182526 A1;

(7)   U.S. Patent Publication No. 2004/0107246 A1;and

(8)   Japanese Patent Publication No. 2001-306414.

(e)   Set forth below is a detailed discussion of references which points out with particularity how the claimed subject matter is distinguishable over the references.

A.   Claimed Embodiments of the Present Invention

Appl. No. 10/722,781
Petition to Make Special

PATENT

The claimed embodiments relate to an information processing system and a storage system involving remote copying and data recovery.

Independent claim 1 recites an information processing system including a first information processing apparatus having a first communication port for transmitting and receiving data; a second information processing apparatus having a second communication port for transmitting and receiving data; and a communicating portion for executing bi-directional communication between the first communication port and the second communication port. The information processing system comprises a utilizing portion for utilizing the communicating portion, for communication in a direction for which a first application program run on the first information processing apparatus sets the first communication port and the second communication port respectively as the sender and the destination of data; and another utilizing portion for utilizing the communicating portion, for communication in a direction for which a second application program run on the second information processing apparatus sets the second communication port and the first communication port respectively as the sender and the destination of data.

Independent claim 2 recites a storage system including a first storage device controller connected to a first storage device; a second storage device controller connected to a second storage device; a first communication port that the first storage device controller has for transmission and reception of data; a second communication port that the second storage device controller has for transmission and reception of data; a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and being configured to write the data to be written to the first storage device also to the second storage device; a utilizing portion for utilizing the communicating portion, for communication in a direction for which a first application program run on the first information processing apparatus sets the first communication port and the second communication port respectively as the sender and the destination of data; and another utilizing portion for utilizing the communicating portion, for communication in a direction for which a second application program run on the second information processing apparatus sets the second communication port and the first communication port respectively as the sender and the destination of data.

Independent claim 5 recites a first information processing apparatus in an information processing system including the first information processing apparatus having a

first communication port for transmitting and receiving data; second communication port for transmitting and receiving data; and a communicating portion for executing bi-directional communication between the first communication port and the second communication port. The first information processing apparatus comprises a utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the first information processing apparatus sets the first communication port and the second communication port respectively as the sender and the destination of data.

Independent claim 6 recites a second information processing apparatus in an information processing system including a first information processing apparatus having a first communication port for transmitting and receiving data; the second information processing apparatus having a second communication port for transmitting and receiving data; and a communicating portion for executing bi-directional communication between the first communication port and the second communication port. The second information processing apparatus comprises a utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the second information processing apparatus sets the second communication port and the first communication port respectively as the sender and the destination of data.

Independent claim 7 recites a first storage device controller in a storage system including the first storage device controller connected to a first storage device; a second storage device controller connected to a second storage device; a first communication port that the first storage device controller has for transmission and reception of data; a second communication port that the second storage device controller has for transmission and reception of data; and a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and being configured to write the data to be written to the first storage device also to the second storage device. The first storage device controller comprises a utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the first storage device controller sets the first communication port and the second communication port respectively as the sender and the destination of data.

Independent claim 10 recites a second storage device controller in a storage system including a first storage device controller connected to a first storage device; the

Appl. No. 10/722,781
Petition to Make Special

PATENT

second storage device controller connected to a second storage device; a first communication port that the first storage device controller has for transmission and reception of data; a second communication port that the second storage device controller has for transmission and reception of data; and a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and being configured to write the data to be written to the first storage device also to the second storage device. The second storage device controller comprises a utilizing portion for utilizing the communicating portion, for communication in a direction for which an application program run on the second storage device controller sets the first communication port and the second communication port respectively as the sender and the destination of data.

Independent claim 13 recites a computer-readable medium containing a computer program software for causing an information processing system including a first information processing apparatus having a first communication port for transmitting and receiving data; a second information processing apparatus having a second communication port for transmitting and receiving data; and a communicating portion for executing bi-directional communication between the first communication port and the second communication port, to execute the steps of: utilizing the communicating portion, for communication in a direction for which the first communication port and the second communication port are respectively set as the sender and the destination of data; and utilizing the communicating portion, for communication in a direction for which the second communication port and the first communication port are respectively set as the sender and the destination of data.

Independent claim 14 recites a computer-readable medium containing a computer program software for causing a storage system including a first storage device controller connected to a first storage device; a second storage device controller connected to a second storage device; a first communication port that the first storage device controller has for transmission and reception of data; a second communication port that the second storage device controller has for transmission and reception of data; and a communicating portion for carrying out bi-directional communication between the first communication port and the second communication port, and having a function for writing the data to be written to the first storage device also to the second storage device, to execute the steps of: utilizing the

communicating portion, for communication in a direction for which the first communication

port and the second communication port are respectively set as the sender and the destination

of data; and utilizing the communicating portion, for communication in a direction for which

the second communication port and the first communication port are respectively set as the

sender and the destination of data.

One of the benefits that may be derived is that a communication path is

effectively used for carrying out remote copying and facilitating the recovery work of the

remote copying.

B.   Discussion of the References

None of the following references disclose a communicating portion for

executing bi-directional communication between a first communication port of a first

information processing apparatus and a second communication port of a second information

processing apparatus, and utilizing the communicating portion: (1) for communication in a

direction for which a first application program run on the first information processing

apparatus sets the first communication port and the second communication port respectively

as the sender and the destination of data; and/or (2) for communication in a direction for

which a second application program run on the second information processing apparatus sets

the second communication port and the first communication port respectively as the sender

and the destination of data.

1.   U.S. Patent No. 3,795,901

This reference relates to a data processing memory system with bidirectional

data bus using a single bidirectional data bus for transmitting data and other information

between two or more units of a digital computer or other data processing system. See column

2, lines 1-5.

2.   U.S. Patent No. 5,832,510

This reference relates to a control method for the information processing

system, and a storage medium for storing programs for performing the control, having a

program provided on a first server information processing device and an agent program

provided on a second server information processing device.

Appl. No. 10/722,781
Petition to Make Special

PATENT

3. <u>U.S. Patent No. 6,681,303 B1</u>

This reference discloses an information system coupled to a CPU, comprising: a first and a second storage system each of which comprises a controller and a storage device controlled by a controller; an inter controller path via which first storage system and second storage system are coupled, a first storage system receiving an instruction and sends data stored in a partial area of the logical volume to a second storage system via an inter controller path, with a second storage system writing data.

4. <u>U.S. Patent Publication No. 2003/0033463 A1</u>

This reference discloses a computer system having information processing module that comprises two module storage connections, including a first and a second plurality of port bypass controllers interconnected to form first and second chains of port bypass controllers, with respective port bypass controllers of the first and second chains being connectable to a respective carrier storage connections at each module receiving location.

5. <u>U.S. Patent Publication No. 2003/0041207 A1</u>

This reference relates to a controller device having a transmission and reception circuit, a first control part having plurality of connection ports connected to the information processing apparatus, a port number storage part, a second control part and port.

6. <u>U.S. Patent Publication No. 2003/0182526 A1</u>

This reference relates to a method for controlling a transfer of information between a first storage system and a second storage system in which the first storage system receives a command and the first storage system receives a first data-write command, recording first information on a first information storage medium and either sending a second data-write command that corresponds to the first data-write command to a second storage system for recording second information corresponding to the first information on a second storage medium. See paragraph [0024].

7. <u>U.S. Patent Publication No. 2004/0107246 A1</u>

This reference discloses a control system and control method, method and apparatus for processing information, information processing terminal and method thereof,

Appl. No. 10/722,781
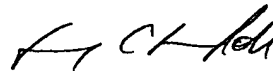Petition to Make Special

PATENT

storage medium, and program. It further shows a first device serving as a controlling device and a second device serving as a controlled device that can communicate with each other whenever communication is needed, a first device can transmit various data including a request to the second device, and conversely a second device can transmit various data to a first device, whenever transmission is required.

8.   Japanese Patent Publication No. 2001-306414

This reference relates to a remote copy system for storage device, and a way to solve the problem that the remote copy transfer speed of a storage device is slow in a computer system for realizing remote copying between plural storage devices and thereby the throughput of a host I/O has been interrupted. A host computer is connected to plural storage devices through a fiber channel and remote copying is performed through the fiber channel. A storage device to be a copying source performs log-in by applying information capable of identifying log-in from the storage device itself and a storage device for receiving the log-in determines a remote side storage device and a port candidate by returning information for specifying a port capable of performing remote copying only at the time of receiving the log-in from the storage device concerned.

(f)   In view of this petition, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,

Chun-Pok Leung
Reg. No. 41,405

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
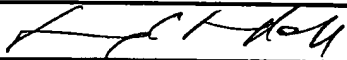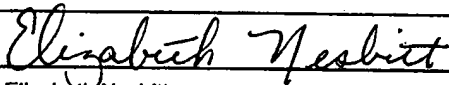Tel: 650-326-2400
Fax: 415-576-0300
Attachments
RL:rl
60365412 v1

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/722,781
Filing Date	November 25, 2003
First Named Inventor	Furuumi, Noboru
Art Unit	2186
Examiner Name	Unassigned
Attorney Docket Number	16869K-102000US

Total Number of Pages in This Submission

RECEIVED

JUN 2 1 2005

Technology Center 2100

ENCLOSURES *(Check all that apply)*

- ☒ Fee Transmittal Form
  - ☐ Fee Attached
- ☒ Preliminary Amendment/
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53

- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☒ Petition to Make Special
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD

- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please identify below):

Return Postcard

Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP
Signature	
Printed name	Chun-Pok Leung
Date	December 30, 2004
Reg. No.	41,405

CERTIFICATE OF TRANSMISSION/MAILING

Express Mail Label: EV530892781US

I hereby certify that this correspondence is being deposited with the United States Postal Service with "Express Mail Post Office to Address" service under 37 CFR 1.10 on this date December 30, 2004 and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature	
Typed or printed name	Elizabeth Nesbitt
Date	December 30, 2004

60387414 v1

TO THE U.S. PATENT AND TRADEMARK OFFICE:

60387466 v1

Application No.:	10/722,781	Docket No.:	16869K-102000US
Confirmation No.:	7247	Attorney:	RL
Due Date:	NONE		
Date Mailed:	*December 30, 2004*		

Please stamp the date of receipt of the following documents and return this card to addressee.

ENTERED

JAN 18 2005

- Transmittal Form (1 page)
- Fee Transmittal Form (1 page in duplicate)
- Preliminary Amendment (10 pages)
- Petition to Make Special (8 pages)
- 8 Patent References

OIPE
DEC 3 0 2004
PATENT & TRADEMARK OFFICE

Customer Copy

Label 11-F June 2002 02

EV 530892781 US

EXPRESS MAIL

UNITED STATES POSTAL SERVICE®

Post Office To Addressee

ORIGIN (POSTAL USE ONLY)

PO ZIP Code: 94301

Date In: 12 30 04

Time In: 12 30

Weight: 2 lbs. 12.20 ozs.

Acceptance Clerk Initials

Total Postage & Fees: $ 21.

CUSTOMER USE ONLY

METHOD OF PAYMENT:

Express Mail Corporate Acct. No.: X941856

650 326 2400

FROM: (PLEASE PRINT)

TOWNSEND TOWNSEND & CREW LLP
379 LYTTON AVE
PALO ALTO   CA 94301-1431

16869K-102000 US   RL

TO: (PLEASE PRINT)

COMMISSIONER FOR PATENTS
PO BOX 1450
ALEXANDRIA   VA 22313-1450

PRESS HARD. You are making 3 copies.   FOR PICKUP OR TRACKING CALL 1-800-222-1811 www.usps.com

EV 530892781 US